

A STUDY TO ASSESS THE KNOWLEDGE & PRACTICES OF ASEPTIC TECHNIQUES APPLIED IN NURSING PRACTICE AMONG STAFF NURSES WORKING IN SELECTED HOSPITAL, AHMEDNAGAR

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Abstract -

Background : Aseptic technique is a procedure used by medical staff to prevent the spread of infection. The goal is to reach asepsis, which means an environment that is free of harmful microorganisms. Each healthcare setting has its own set of practices for achieving asepsis.

Aims and Objectives : A Non- experimental; descriptive study designs with cross sectional approach were used to assess the knowledge and practices. The data were collected from 110 staff nurses working Dr. Vikhe Patil Memorial Hospital at Ahmednagar by stratified sampling technique with using of the structured questionnaires and observational check list. The results were analyzed and interpreted using descriptive and inferential statistics.

Results : Findings revealed that overall knowledge mean score was (11.56 ± 2.37) which is 57.80 % of the total score. It interprets that the staff nurses had 'Good' level of knowledge of aseptic technique applied in nursing practice. However the overall practices mean score for (YES) was (15.08 ± 4.08) which is 75.40% of the total score. It interprets that the staff nurses maintain 'Very Good' practices of aseptic technique applied in nursing practice. However overall practices mean score for NO was (4.97 ± 3.12) which is 24.60%. There was Significant association found between the knowledge and the demographic variables of aseptic technique applied in nursing practice among staff nurses variables like

Year of working experience (4.34).

There was Significant association found between the practices for (YES) and the demographic variables of aseptic technique applied in nursing practice among staff nurses. Findings revealed that there was significant association found between the practices and the variables like sex (3.88) and professional qualification (3.87). Conclusion: It is essential to raise awareness about aseptic technique on knowledge and practices while providing nursing care to patients and its impact on health; and develop health seeking behaviors among the patients and caregivers to provide better care and improve the quality of life.

Key words : Aseptic techniques, Practices.

Introduction -

"You have two chances - one of getting the germ and one of not. And if you get the germ you have two chances - one of getting the disease and one of not. And if you get the disease you have two chances - one of dying and one of not. And if you die - well, you still have two chances!" - **William Ernest Henley**

It is emphasized that Asepsis or aseptic means free from pathogenic microorganisms. Aseptic technique is the purposeful prevention of the transfer of organisms from one person to another by keeping the microbe count to an irreducible minimum. Some authors have made a distinction between surgical asepsis or "sterile technique" used in surgery and medical asepsis or "clean technique" that involves procedures to reduce the number and transmission of pathogens.^[1]

In India it is reported that 50-60% of all neonatal deaths occur within the first month of life due to poor aseptic technique practicing in the labour room. Of these more than half may die during the first week of life.^[2]

Emphasized that Patients with sepsis often require care in the intensive care unit (ICU), with broad-spectrum intravenous antibiotics. Once the infection is identified, antibiotics may be tailored to the specific causative organism. Mortality associated



with sepsis can be as high as 60 % if there are other medical problems involved.

Of the three forms of sepsis — uncomplicated sepsis, severe sepsis and septic shock - severe sepsis carries a mortality of 30 % to 35 %, and septic shock carries a mortality of 50 %.

So it is considered that the uses of aseptic techniques are necessary for creating a healthy environment in our universe.^[3]

It is mentioned that aseptic technique is a procedure used by medical staff to prevent the spread of infection. The goal is to reach asepsis, which means an environment that is free of harmful microorganisms. Each healthcare setting has its own set of practices for achieving asepsis. Common examples include surgery rooms, clinics, and outpatient care centers. Aseptic technique is used in various clinical settings to prevent the spread of pathogens. Like another antimicrobial process called clean technique, the primary goal of this process is to prevent harmful organisms from spreading and causing infection. The difference is aseptic technique reduces the risks of infection in the patient directly at the source. Clean technique is more focused on preventing the further spread of pathogens between other people and places.^[4]

Material and Methods:

The Non- experimental; descriptive study designs with cross sectional approach were conducted where 110 staff nurses to assess the knowledge and practices of aseptic techniques at Dr. Vikhe Patil Memorial Hospital at Ahmednagar. Before commencement of the study, approval was obtained from the institutional ethical committee and official permission was received from the authority. Staff nurses who were, Working in Dr. Vikhe Patil Memorial Hospital Ahmednagar, Willing to participate in study, Registered nurses, Able to read & write English, Both male & female nursing staff, in the study were included in the study by using the Probability; Stratified Random Sampling method. The purpose of the study was informed and explained to the participants who voluntarily agreed to participate in the study and gave an informed consent for the same. Material used is self prepared; structured questionnaires and observational check list to collect the data. The collected data was tabulated and analyzed using appropriate statistical methods like descriptive statistics (mean, SD and mean percentage) and inferential statistics (chi – square test).


Observations- Table No. 1 Description of Socio-Demographic data of Staff Nurses

Sr. No.	Demographic Characteristics	Frequency	Percentage (%)
1	Age In Years		
	18-27 years	67	60.90%
	28-37years	35	31.81%
	38-47years	7	6.36%
	48-57years	1	0.90%
	Above 58 years	0	0%
2	Sex		
	Male	25	22.75%
	Female	85	77.25%
3	Educational Qualification		
	SSC	27	24.44%
	HSC	-	-
	HSC-Arts	43	39.09%
	HSC-Commerce	7	6.36%
	HSC-Science	33	30%
4	Professional Qualification		
	C.N.M.	7	6.36%
	R.A.N.M.	32	29.09%
	R.G.N.M.	51	46.36%
	B.Sc.Nursing	12	10.9%
	P.B.B.Sc.Nursing	8	7.27%
5	Type of family		
	Nuclear	57	51.80%
	Joint	46	41.80%
	Single Parent Family	7	6.36%
6	Monthly Income		
	4000 – 8000 Rs	44	40%
	8000 – 12000 Rs	52	47.27%
	12000 – 16000 Rs	10	9.09%
	Above 16000 Rs	4	3.63%
7	Religion		
	Hindu	57	51.81%
	Christian	44	40%
	Muslim	9	8.18%
8	Year of working Experience		
	Less than 1 year	24	21.81%
	1 – 5 Year	58	52.72%
	5 – 10 year	20	18.18%
	More than 10 Years	8	7.27%



Results - Findings related to socio demographic variables: Highest percentage (60.90%) were in the age group of 18-27 years, (77.25%) of staff nurses were females, (22.75%) were males, (39.09%) were HSC Art, (46.36%) were compiled RGNM, (51.80%) belongs to nuclear family, (47.27%) had per capita income of 8000-12000-/- and (51.81%) were Hindu, Majority of staff nurses belongs to (52.72%) were in 1-5 Year of experiences. (Table No.1)

Knowledge of aseptic technique applied in nursing practice: Shows that the highest mean score (12.66 ± 1.84) which is 63.33 % of the total score was obtained in the area of 'B.Sc. Nursing', indicates staff nurses had 'Very good' level of Knowledge. However the other areas like 'CNM, RANM, RGNM, P.B.Bsc' had mean percentage below 59.00 % which interprets that staff nurses had 'Good' level of knowledge.

The study finding shows that overall Knowledge mean score was (11.56 ± 2.37) which is 57.80 % of the total score. It interprets that the staff nurses had 'Good' level of knowledge of aseptic technique applied in nursing practice.

Practices of aseptic technique applied in nursing practice: Shows that the (YES) highest mean score (15.08 ± 3.16) which is 77.74% of the total score was obtained in the area of 'R.G.N.M.', indicates that staff nurses maintain 'Very Good' practices of aseptic technique. However the other areas like 'CNM, RANM, B.Sc.Nursing, P.B.Bsc' had mean percentage below 76% which interprets that staff nurses maintain 'Very Good' practices of aseptic techniques. However the overall practices mean score was for (YES) was (15.08 ± 4.08) which is 75.40% of the total score. It interprets that the staff nurses maintain 'Very Good' practices of aseptic technique applied in nursing practice.

The distribution of mean, SD and mean percentage scores practices of aseptic technique applied in nursing practice shows that the (NO) highest mean score (6.42 ± 1.50) which is 32.14% of the total score was obtained in the area of 'C.N.M.', indicates that staff nurses maintain fair practices of aseptic technique. However overall practices mean score for NO was (4.97 ± 3.12) which is 24.60%.

Association between the Knowledge of aseptic technique applied in nursing practice among staff nurses with their selected demographic variables.

Findings revealed that there was no significant association was found between the knowledge and the variables like age, sex, educational qualification, Professional qualification, type of family, monthly income, religion. However significant association was found between the knowledge and the variables like Year of working experience.

Association between the Practices of aseptic technique applied in nursing practice among staff nurses with their selected demographic variables.

There was no significant association was found between the practices for (YES) and the demographic variables of aseptic technique applied in nursing practice among staff nurses. Findings revealed that there was significant association was found between the practices and the variables like Sex and Professional qualification.

Conclusion - The finding of the study revealed that the knowledge of staff nurses regarding aseptic techniques was found to be 'Good' and had practice aseptic techniques 'Very Good'. So, it is emphasized that the staff nurses should have knowledge about aseptic techniques and practice it in clinical setting to improve the quality of nursing care and to reduce the nosocomial infections.

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